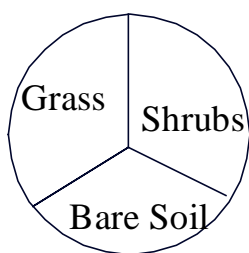




# THE COVEY HEADQUARTERS

Volume 15 Issue 1 Spring 2016

This newsletter is aimed at cooperators and sports-people in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, and University of Missouri Extension. If you would like to be removed from this mailing list or have suggestions for future articles please contact [jeff.powelson@mdc.mo.gov](mailto:jeff.powelson@mdc.mo.gov) or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept.....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use **shrubs** as the cornerstone for your quail management efforts. Manage for a **diverse grass, broadleaf weed and legume mixture and provide bare ground** with row crops, food plots or light disking **right next to** the shrubby area.

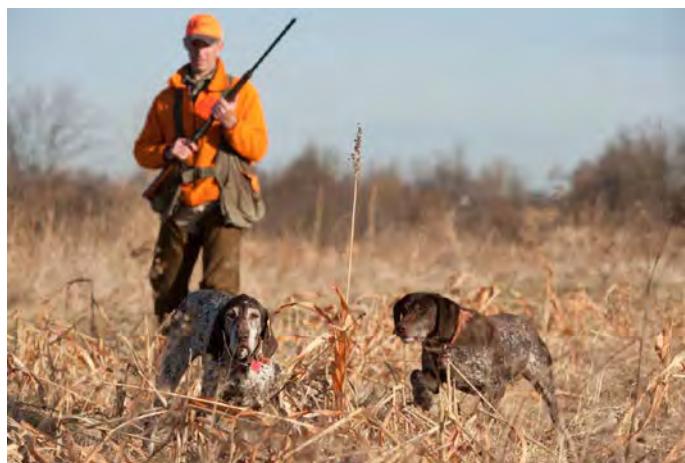
## Missouri Outdoor Recreational Access Program

### Introduction:

Administered by the Missouri Department of Conservation (MDC), the Missouri Outdoor Recreational Access Program (MRAP) provides landowners an opportunity to generate extra income by opening their property for public recreational activities such as hunting, angling, and wildlife viewing.

### Program Eligibility:

Any Missouri landowner (except governmental entities), regardless of legal residence, is eligible to participate in the program. To be considered for MRAP, a land offer must be real property under the ownership and control of the applicant or their legal representative.



Landowners may offer all or portions of tracts as long as the offered acres meet minimum acreage and habitat requirements. Offers must be at least 40 contiguous acres in size, and at least 20% of the tract must provide quality habitat.\* Examples of targeted cover types include native grass fields, wildlife friendly field buffers, restored wetlands, tree & shrub plantings, brushy fencerows & edges, managed woodlands and old fields.

\*Land offered for fishing access only are not subject to the minimum acreage and habitat requirements.

### **Property Evaluation, Compensation and Benefits:**

Land offers will be evaluated and ranked based on the following criteria:

- Access type selected by landowner. Options include: 1) All seasons hunting and fishing; 2) Small game & turkey hunting; 3) Youth hunting and fishing; and 4) Archery hunting; 5) Fishing; and 6) Wildlife viewing.
- Amount of quality wildlife habitat present on the land
- Committed program participation length (one, three, or five years)
- Proximity to major metropolitan areas or other priority geographies
- Planned habitat improvements or conservation practices
- Offer size
- Availability of other public lands in the local area

Landowners accepted into MRAP will receive annual incentive payments. Payment rates are based on the criteria listed above but most participants can expect to earn \$15-\$25/acre/year.

Landowners interested in boosting their annual payment may do so by implementing habitat improvements on their land. Participants will also be eligible for enhanced cost-share incentives (up to 90 percent) to complete the planned habitat practices.

### **Landowner Assurances:**

Liability for public users is a concern for Missouri landowners. Fortunately, Missouri's Recreational Use Immunity Law offers liability protection to private landowners participating in MRAP.

MRAP public access is limited to foot traffic only and from one hour before sunrise until one hour after sunset. No motorized vehicles are permitted and parking will generally occur along public roadsides. Other public use prohibitions include trapping, target shooting, camping, fireworks, horseback riding, bicycling, alcohol consumption, dog training, and fire building. Local conservation agents will assist landowners should they witness any prohibited activities.

MRAP public access rules do not apply to the landowner. Moreover, landowners may allow individuals to engage in activities not permitted under the selected public access option. In addition, landowners may continue most farming and land management operations provided that any areas designated as quality wildlife habitat aren't negatively affected or destroyed.

### **For More Information:**

To learn more about the Missouri Outdoor Recreational Access Program, contact your local MDC private land conservationist. Contact information may be found under the "Local Contact" section of the MDC website at [mdc.mo.gov](http://mdc.mo.gov). More information may also be found at the MRAP web page ([mdc.mo.gov/mrap](http://mdc.mo.gov/mrap)).

## **EQIP Monarch Butterfly Project**

NRCS is currently conducting an EQIP signup dedicated to creating monarch butterfly habitat. The ranking period ends May 20<sup>th</sup>. The special signup is occurring in a 10-state region in an effort to increase monarch habitat on private land.

The main intent of the program is to assist landowners with planting vegetation beneficial to the monarch. Seed mixes will contain a wildflower mixture with 2 of these species being milkweed. Milkweed is critical during the caterpillar stage, where they rely entirely on milkweed plants.

Other practices in this initiative include – prescribed burning, brush management, invasive species control, and early successional habitat development. These practices will improve habitat for monarchs and other pollinators, and many species of grassland birds including quail.

Visit your local USDA Service Center to see if your farm qualifies for the Monarch Butterfly Project.

## Plants You Should Know: American Plum

American Plum is a thicket forming shrub reaching 10-15 feet in height. Thickets are characterized by having taller shrubs in the center which gradually taper to the shortest shrubs on the perimeter of the thicket.

The plant spreads by underground root suckers which send up new shoots every 1-2 feet apart. In the thicket interior the older plants may be 3-4 feet apart.

Bark on older trunks and limbs peels into long linear plates.

Small white lenticles or pores are prominent on the younger branches and twigs.

During the winter this shrub can be distinguished by the short stiff spurs which bear fruit and leaves during the growing season.

You may be able to find the pits of the fruit from previous growing seasons on the ground under the shrubs.

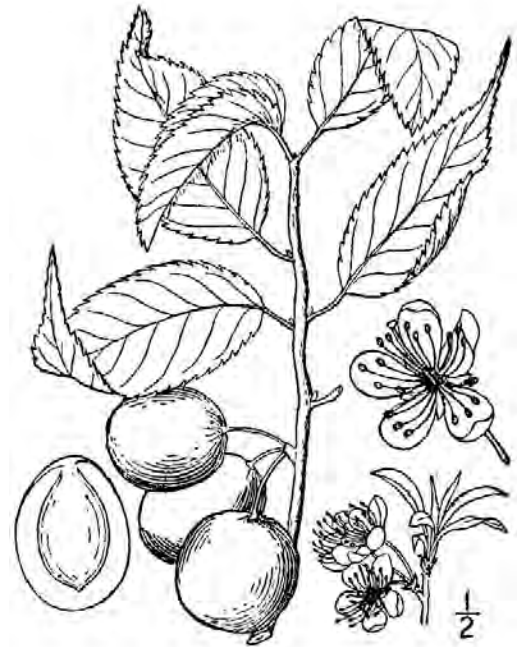
During April, the shrubs will be covered with fragrant white blossoms; and one of the first to bloom in spring.

The leaves of the shrubs are 1 ½ to 2 inches wide and 2 to 4 inches long. They are egg-shaped or oval and the margins are toothed.

In late summer, mature shrubs may produce many small plum fruit approximately one inch long. In September these small plums turn red or purple and fall to the ground.

Plum thickets provide excellent food and cover for quail and many other species of wildlife.

Plum seedlings can be ordered from the George O. White State Forest Nursery – [www.mdc.mo.gov](http://www.mdc.mo.gov)



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. 3 vols. Charles Scribner's Sons, New York. Vol. 2: 323.

## Seedling Planting and Care

Many of you will be planting trees and shrubs this spring. Below are a few tips to get your planting off to a great start.

### During Planting -

- Avoid planting when the ground is frozen or extremely dry, or when excessively wet and sticky.
- Never leave open bundles of seedlings exposed to the sun and wind. During planting, take only a few bundles at a time. Cover the others and keep cool and moist.
- Seedlings should be carried in buckets or bags and covered with wet moss to protect roots from exposure to sun and air.

- Remove only one seedling at a time from the bucket and plant immediately.
- Check spacing periodically to ensure proper number of seedlings per acre.
- When machine planting, be sure tractor speed is matched to the capabilities of the person planting.
- Check furrow depth when machine planting or depth of the planting hole when hand planting to provide for the full length of the roots when they are straightened.
- To check firmness of soil packing, grasp the top of the seedling and pull gently upward; if the tree pulls out of the ground easily, it was not firmly packed.

### **Care After Planting -**

- After establishment, the work begins! It is necessary to take several precautions to protect your investment of time, money and effort.
- Livestock will eat young seedlings and trample the protective soil and leaf cover, encouraging soil erosion. Fence livestock from your woods and tree/shrub planting.
- Animals such as rabbits, mice and deer can damage young trees. Keep all vegetation short within your planting to deter these damaging pests. Shrub protectors work well to prevent rabbit damage.
- Prevent growth of weeds and grasses around new trees by cultivating, using herbicides, disking or hoeing as often as necessary during the first three to five years. Weed and grass competition inhibits tree growth.
- Inspect planting regularly for evidence of insect or disease damage. If excessive damage is found, contact your local MDC forester for help in diagnosing the problem and recommending controls.
- Mulching around trees in smaller plantings can help conserve soil moisture and control weed growth. Do not mulch around shrubs to encourage shrub suckering.
- Spread wood chips, rotted sawdust or straw at a depth of 3 inches and 2 feet diameter around but not directly on the seedling.

## **Quail Reproduction**

A review of many studies finds that spring-to-fall quail abundance increases 160 percent on average, and more than 300 percent in some cases. Quail achieve this high productivity in a variety of ways:

- Hens lay large clutches of 10-20 eggs.
- Hens quickly start a second or third nest if initial nests are destroyed
- Hens are not strictly monogamous as once thought, sometimes laying a clutch of eggs and then moving on to find another mate while the first mate incubates the initial nest. Males incubate about 25 percent of the nests, according to research in Missouri and other states.

- Sometimes hens complete incubation only to abandon their brood after a few weeks. Biologists speculate that these abandoned broods are old enough to fend for themselves, or that other quail adopt them. In any case, the hen is now free to start another nest.

The management implications of nesting season length are clear. Suitable nesting cover must be available from April-September. The majority of Missouri's quail production begins with nesting in May. Many attempts fail. About 50 percent of incubated nests hatch chicks, and of the unsuccessful nests, about 90 fail due to predation. In many cases the incubating adult is also killed. The greatest chance for nest success lies in the availability of season-long cover for second or third nesting efforts. This is why it is so important to leave ditch banks and odd areas un-mowed until well into September.

It takes a hen 15 days to lay a typical 14-egg clutch. Much of the variability in the number of days required for nesting is due to clutch size. Typically the number of eggs per clutch declines with each subsequent nesting effort. Incubation requires 23 days.

## Still Farming Low-Yield Field Edges?

The ears of corn to the right were collected from opposite sides of a wooded fenceline. One side of the fenceline was buffered with CP33 and the larger ear produced next to the buffer estimated at 168 bushel/acre.

The smallest ears of corn were picked on the edge of the crop field on the opposite side of the fenceline where no buffer was present. These smaller ears were estimated to produce 45 bushel/acre. In both cases the input costs were the same to produce both ears of corn.

With crop prices forecasted to be tight for the foreseeable future, why not consider enrolling low-yield portions of your fields into the Continuous Conservation Reserve Program (CCRP)? Nearly every farm field in Missouri has low-yield areas. Visit your local FSA office to see what practices you may qualify for. Field borders, filter strips, and pollinator habitat can be established through the CCRP.

Soil rental rates were just revised and most county average soil rental rates have increased. Many county rates average well over \$150 an acre. Many of the CCRP practices offer up to 90% cost-share to establish the vegetation and some offer a sign-up bonus of \$100-\$150 per acre.





## Pollinator Habitat Planting Scott Engelman, Quail Forever Farm Bill Wildlife Biologist

The monarch butterfly is a charismatic microfauna that most grade schoolers, grad students, and grandparents can identify. Their dramatic decline of more than 80% of the Mexican overwintering population since 1990 has been disseminated well enough that keeping conversations in terms of monarchs has enabled most folks to understand what we look for in pollinator habitat.

Pollinator health extends well beyond conservation for the honeybee and the monarch butterfly, despite the nationwide love affair with these two species. Butterflies, bees, and moths are just the tip of the iceberg when it comes to insect diversity in North America. Insect diversity is difficult to pin down, but according to the Smithsonian Institution, North America is the home of over 23,000 species of beetles, 19,600 species of flies, 17,500 species of ants, bees, or wasps, and over 12,000 species of moths and butterflies. Worldwide, there are over 900,000 species of known insect, and even more species of invertebrates not technically considered insect. Many, perhaps most, of these insects rely on a specific species or genus of plant at some point in their lifecycle to survive. The monarch butterfly, and common milkweed, is one such relationship.



Beyond benefits for insects and game species, planting as diverse a native seed mix as feasible has other benefits. Maintaining a stand of wildflowers was shown by Norland et al. (2015) to be

simpler when very diverse stands of grasses and wildflowers are planted. Their study found evidence that increasing species diversity when seeding 20 native species resulted in higher odds (81%) of reconstructions being dominated by native species, compared to a seed mix of 10 native species having only a 51% chance of having remained dominantly native. In other words, plant it diverse, and plant it native, and you're less likely to have long term problems with weed suppression and invading non-native grasses!

Schools nationwide are assisted by Quail and Pheasants Forever chapters and partners in the installation of outdoor pollinator classrooms. Diverse stands of native flowers and grasses are a critically endangered ecosystem. No matter the time of year, be it the spring blooms of penstemons, spiderworts, and coreopsis, the midsummer purples of coneflowers, milkweeds, and vervains, or the fall yellows and whites of goldenrods, bonesets, mints and sunflowers, and the paintbrush-like accents of indiagrass, the dainty eyebrows of gramas, or the feathery whisps of little bluestem and broomsedge, diverse plantings of native plants serve as "calendar perfect" diverse grasslands and excellent quail brood rearing habitat.

One such planting was conducted in February at the University of Missouri's AL Gustin Jr. Golf Course in Columbia. Almost 200 participants helped plant a "Show-Me Pollinator Plot." This, the 11<sup>th</sup> plot planted in Missouri by Quail Forever and their conservation partners was a true field day event. Isaac Breuer, Grounds Director for the golf course is an avid conservationist. He attended the first Missouri Monarch Collaborative Meeting almost 2 years ago in Columbia and remarked that he'd like to do a Monarch and pollinator planting on the golf course.

The connections were made at that event with Quail Forever and the Missouri Department of Conservation, and with a year's preparation, the site was ready to receive the seed this February. Jake Prescott, Mid MO Uplanders Quail Forever President says he can see many more of these events in the

chapter's future, "The kids are planting the same mixes I've used on my farm, this should grow into a great brood rearing and Monarch butterfly plot."

The Missouri Department of Conservation provided preparation before the event and then personnel to man stations where the youth learned how pollinators work, made their own seed balls to take home and plant, learned about predator/prey relationships, stomped coneflower plugs into the ground....ohh, and we talked just a little bit about quail! The plot will be used in the future by grade schoolers and adults alike to learn about pollinators, quail and their needs.

## Don't Attach Your Mower!

Once the food plots or crops are in the ground and the hay harvested, many landowners can't stand being away from the machinery.....they get on a tractor and start mowing all of the odd areas on the farm that they can get to!!

### **THIS IS NOT A QUAIL-FRIENDLY**

**PRACTICE**.....Studies have shown that quail populations are doubled when recreational mowing is avoided. We recommend you sell your mower and buy a disk or sprayer. Save the cover for quail nesting and brooding.

Where quail are concerned a mower

should only be used to control weed growth in new shrub or grass plantings.



## Private Lands Chief of MDC Honored by Quail Forever with “Faces of Conservation” Award

Quail Forever recently honored Bill White, Private Land Services Division Chief for the Missouri Department of Conservation, as part of the “Faces of Conservation” awards at National Pheasant Fest & Quail Classic 2016. The national award highlights the varied efforts of individuals to conserve wildlife habitat and support the overall conservation mission of Quail Forever.

“Thanks to the efforts of Bill White, partnerships with private landowners and conservation groups have propelled Missouri to be a leader in wildlife habitat management nationwide,” stated Elsa Gallagher, statewide quail coordinator for Quail Forever in Missouri. “His efforts as a lifetime supporter of conservation on private lands and his keen interest in restoring bobwhite habitat are worthy are recognition from the outdoor community.”

With nearly 30 years of experience as a wildlife biologist working for MDC, White is both a passionate quail hunter and a promoter of private lands management in Missouri. White's leadership at MDC has resulted in Missouri developing one of the first National Bobwhite Conservation Initiative Focus Areas in the nation. Working with NRCS and Quail Forever, he was also instrumental in designing a successful Farm Bill Wildlife Biologist program in the state. White leads a division who shares his mission to help private landowners tap into the increasing amount of quail-management resources available throughout the state.

"With more than 93 percent of state's land base in private ownership, our department understands that the conservation of fish and wildlife resources in Missouri is closely tied to the stewardship efforts of private landowners; an endeavor Bill White has devoted his career to," explained Tom Draper, deputy director for the Missouri Department of Conservation. "We applaud Bill's efforts to coordinate and collaborate with private landowners to assure their land use goals for natural resources are being met, and we look forward to the continued success of the department's private lands program under the leadership of Mr. White."

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